

**To:** Fish, Tonya[Fish.Tonya@epa.gov]  
**From:** Lindsay Patterson  
**Sent:** Tue 3/24/2015 9:02:02 PM  
**Subject:** Fwd: 1:500,000 to 1:100,000 Stream Network  
2000\_06\_28\_305b\_98report\_appenda.pdf

I had my new staff person take another look to see what we had for the 500,000 stream miles. It doesn't seem like much of anything is out there for us to use as an estimate. He provided a few potential surrogates if you wanted to go with those, perennial streams - based on mean annual flows or in the attached document, or stream order. I wouldn't be confident saying any of these are representative of the 1:500,000 map without a lot of additional analysis.

I had the GIS person fix the survey pop-ups on the web map. Now all the information is displaying properly. You may need to delete your browsing history in order to see the changes.

Lindsay

----- Forwarded message -----

**From:** Michael Thomas <[michael.thomas@wyo.gov](mailto:michael.thomas@wyo.gov)>  
**Date:** Tue, Mar 24, 2015 at 2:52 PM  
**Subject:** Re: 1:500,000 to 1:100,000 Stream Network  
**To:** Lindsay Patterson <[lindsay.patterson@wyo.gov](mailto:lindsay.patterson@wyo.gov)>

Lindsay,

I looked for 1:500k stream networks and the RF1 with no luck. It appears that 500k and RF1 were stream networks that were used back in the late 80s/early 90s. Since then, these networks have been enhanced and built upon to make the more widely used 100k to 24k, to the point where the 500k appears to be obsolete. I talked to Cathy and she also believes that the 500k is now nonexistent.

Cathy did mention selecting streams from the 100k based on total flow as these streams (perennial) would show up in the 500k. Based on total flow greater than or equal to 6 cfs, there are 20,700 stream miles in Wyoming.

I also selected based on stream order if it may help the decision: 42,700 miles for second order and higher; 23,000 miles for third order and higher.

Finally, I found an EPA report from 2000 (attached) that has Wyoming's river miles broken down into total, perennial and intermittent stream on page 3. Oddly, it has no miles for ditches/canals, which is obviously not the case.

Hopefully all this information can help make a rough estimate? Let me know if you want me to try any other selections or keep digging. Somebody, somewhere has to have that RF1...

Mike

On Tue, Mar 24, 2015 at 12:10 PM, Lindsay Patterson <[lindsay.patterson@wyo.gov](mailto:lindsay.patterson@wyo.gov)> wrote:

I think if we can get an estimate of stream miles for a 1:500,000 stream network in Wyoming, that would be very helpful.

Thanks,

Lindsay

On Tue, Mar 24, 2015 at 12:07 PM, Michael Thomas <[michael.thomas@wyo.gov](mailto:michael.thomas@wyo.gov)> wrote:

Lindsay,

Looks like the EPA has a series of national hydrologic databases called "Reach Files." The earliest version, Reach File 1 (RF1) is scaled at 1:500,000. I'm not too familiar with the RF databases, but I can dig around, download what we need and see what it would take to determine stream miles. Just let me know what exactly it is you want done.

Thanks,

Mike

On Tue, Mar 24, 2015 at 11:39 AM, Lindsay Patterson <[lindsay.patterson@wyo.gov](mailto:lindsay.patterson@wyo.gov)> wrote:

Mike,

I was wondering whether you knew of any stream networks depicted at the 1:500,000 scale that we could use to get an estimate of stream miles in Wyoming.

Our current surface water classification list is based on a 1:500,000 map and the Recreation UAA is based on the 1:100,000 NHD. I am wondering if it would be possible to get an estimate of stream miles for what our Table A and Table B system designates. EPA is wondering about this as they take action on the Recreation UAA.

Thanks,

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Lindsay Patterson  
Surface Water Quality Standards

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